



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/753,591  | 01/03/2001  | Jesse A. Jurrens     |                     | 1866             |
| 40158   | 7590        | 09/13/2006           | EXAMINER            |                  |
| WOODS FULLER SHULTZ & SMITH P.C.<br>ATTN: JEFFREY A. PROEHL<br>P.O. BOX 5027<br>SIOUX FALLS, SD 57117 |             |                      | RODRIGUEZ, PAMELA   |                  |
|   |             | ART UNIT             | PAPER NUMBER        |                  |
|   |             |                      | 3683                |                  |

DATE MAILED: 09/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |
|------------------------------|------------------------|---------------------|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |
|                              | 09/753,591             | JURRENS, JESSE A.   |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |
|                              | Pam Rodriguez          | 3683                |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 07 August 2006.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 3,4,8-31 and 38-47 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 3,4,8-31 and 38-44 is/are rejected.  
 7) Claim(s) 45-47 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 07 August 2006 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

|  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ .  | 6) <input type="checkbox"/> Other: _____ .                        |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 7, 2006 has been entered.

### ***Drawings***

2. The new Figure 6 drawing was received on August 7, 2006. This drawing is approved by the examiner and thus, all the previous drawing, specification, and claim objections associated therewith have been overcome .

### ***Claim Objections***

3. Claim 17 is objected to because of the following informalities: it contains an improper Claim status identifier. Currently Claim 17 is identified as being "Currently Amended", however, there are no amendments to that claim present in the response filed on August 7, 2006. So the claim identifier should be changed to read -(Previously Presented)—to accurately reflect the claim's status. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 38-44 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,129,634 to Harris.

Regarding Claim 38, Harris discloses a suspension device (see Figure 1) capable of connecting to a frame of a vehicle and a swing arm on which a wheel of the vehicle is mounted having all the features of the instant invention including: a housing 40 defining an interior, a shock absorber 20/30/14 mounted on the housing (see Figure 1), the shock absorber including a rod 20 movably mounted on the housing 40 (at least through its connection to element 30 and element 26) such that at least a portion of the rod 20 extends into the interior of the housing and through the housing (see Figure 1 and the lower portion of rod 20 which extends through cylinder 18 and thus also through housing portion 40), a piston 14 positioned in the interior of the housing 40 and being mounted on the rod of the shock absorber to move with the rod (note that the piston is readable as being mounted on rod 20 at least through element 18, see also Figure 5 of the reference), an air bag 30 positioned within the interior of the housing 40 (see Figure 1), the air bag being constructed of an elastomeric material, the air bag 30 having a first end 28 mounted on the housing in the interior of the housing at element 32 and a

second end 34 mounted on the piston 14 such that the piston, the housing, and the air bag collectively define an air chamber within the housing (see Figure 1).

Regarding Claim 39, see ends 28 and 34.

Regarding Claim 40, see flange 32 and flange 34 and column 3 lines 55-58.

Regarding Claim 41, see portion 28 which receives a portion of an end cap 26 of the housing and portion 34 receiving piston 14.

Regarding Claim 42, see Figure 1.

Regarding Claim 43, see shock absorber 18 which inherently includes a hydraulic piston and a cylinder, at least a portion of the cylinder mounted in housing 40 and the piston would inherently be mounted on rod 20, wherein the rod is certainly capable of being configured to be mounted on one element of the frame or the swing arm and the cylinder is certainly capable of being mounted on the other of the frame or swing arm.

Regarding Claim 44, see Figure 1, where at least a portion of the air bag 30 is surrounded by housing 40.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. **6,003,628 TO JURRENS ET AL** *in view of U.S. Patent NO. 3,752,270 TO VALDESPINO.*

Regarding Claim 3, Jurrens et al disclose a suspension system for a motorcycle (see Figure 12) having most all the features of the instant invention including: a motorcycle main frame 14, a swing arm 16 pivotally mounted to the motorcycle main frame about a pivot axis 18, at least one air bag suspension system 10, the air bag suspension system forming a shock absorber which includes at least one air bag 54 constructed of an elastomeric material, the air bag is housed within a housing assembly 52' and is secured at one end to a piston (see Figure 12 and the piston of shock absorber 140) and at another end to an upper plate or end cap 116 of the housing assembly 52' (see Figure 12 and column 8 lines 48-57), and the shock absorber is attached at a forward end to a cross member plate 78 of the motorcycle main frame 14 and is pivotally attached at a rearward end to a lower transverse cross member 66 of the swing arm 16 (see Figure 7).

However, Jurrens et al do not disclose that the air bag is secured at one end to a piston located **within the housing assembly.**

Valdespino is relied upon merely for his teachings of an air bag suspension system (see Figure 6) forming a shock absorber which includes at least one air bag 46, the air bag is housed within a housing assembly 41 and is secured at one end to a piston 50 located within the housing assembly and at an other end to an end cap 43 of the housing assembly.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the air bag suspension system of Jurrens et al to include an air bag housed within a housing assembly that is secured at one end to a piston located within the housing assembly as taught by Valdespino as an alternate means of damping the motorcycle to simplify the overall air bag suspension design and to reduce the overall number of parts to the assembly. By constructing the air bag and shock absorber as one piece, a reduction in cost and simplicity of manufacture can be achieved.

8. Claims 4 and 8-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over ***U.S. PATENT NO. 6,003,628 TO JURRENS ET AL IN VIEW OF U. S. PATENT NO. 5,129,634 to Harris.***

Regarding Claim 4, Jurrens et al is relied upon as applied to Claim 3 above.

However, again, Jurrens et al do not disclose that the piston is located within the housing assembly such that the piston, the end cap, and the air bag collectively define an air chamber within the housing for receiving and retaining air.

Harris is relied upon merely for his teachings of an air bag suspension system (see Figure 1) forming a shock absorber which includes at least one air bag 30, the air bag is housed within a housing assembly 40 and is secured at one end to a piston 14 located within the housing assembly and at an other end to an end cap 26 of the housing assembly.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the air bag suspension system of Jurrens et al

Art Unit: 3683

to include an air bag housed within a housing assembly that is secured at one end to a piston located within the housing assembly as taught by Harris as an alternate means of damping the motorcycle to simplify the overall air bag suspension design and to reduce the overall number of parts to the assembly. By constructing the air bag and shock absorber as one piece, a reduction in cost and simplicity of manufacture can be achieved.

Regarding Claim 8, Jurrens et al disclose that the air-bag suspension member includes air.

Regarding Claim 9, Jurrens et al disclose that the air included in the air-bag suspension member is pressurized (see column 6 lines 13-31).

Regarding Claim 10, Jurrens et al disclose that a degree of pressurization of the pressurized air in the air-bag suspension member 10 is adjustable (see column 6 lines 13-31).

Regarding Claim 11, Jurrens et al disclose that the adjustment of the degree of pressurization of the pressurized air in the air-bag suspension member alters ride height of the motorcycle (see column 6 lines 59-62).

Regarding Claim 12, Jurrens et al inherently disclose that the air-bag suspension member is characterized by a support spring force which is a function of compression stroke.

Regarding Claims 13 and 14, Jurrens et al., as modified, disclose most all the features of the instant invention as applied above except for the specifics of the support

Art Unit: 3683

spring force being a progressive function of compression stroke or an exponential function of compression stroke.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the air bag suspension member of Jurrens et al., as modified, so that the support spring force is either a progressive function or an exponential function of compression stroke as a matter of design preference dependent upon the desired damping characteristics of the suspension system. As long as the spring force is correlated to the compression stroke to provide adequate damping to the air bag system, their relationship to one another is arbitrary.

Regarding Claim 15, see column 6 lines 13-31 of Jurrens.

Regarding Claim 16, see column 6 lines 13-31 of Jurrens, where inherently this limitation would be true.

Regarding Claim 17, Jurrens et al disclose most all the features of the instant invention including: an air-bag suspension 10 for replacement of a stock coil spring suspension in a soft tail type motorcycle characterized by a motorcycle main frame 14 with a cross member plate 78 and a swing arm 16, the swing arm 16 pivotably attached to the motorcycle frame 14 and having a transverse cross member 34, the stock coil spring suspension having a forward end attached to the cross member plate 78 and a rearward end pivotably attached to the transverse cross member 32/34 (see Figure 12), the air-bag suspension for replacement of a stock coil spring suspension comprising: at least one air-bag 54 constructed of elastomeric material, the air-bag 54 having a first end and a second end; a housing assembly 52' with an end cap 66, the housing

Art Unit: 3683

assembly 52' enclosing the air-bag 54, and the first end of the air-bag 54 secured to a piston (see Figure 12 and the piston of shock absorber 140) and the second end of the air-bag secured to the end cap 66 ; and, a shock absorber 140, the shock absorber 140 having a forward end and a rearward end, the shock absorber attached to the housing assembly 52' and the shock absorber 140 attachable at the forward end to the cross member plate 78 of a motorcycle main frame and pivotably attachable at the rearward end to the lower transverse cross member 34 of the swing arm (see Figures 1-12).

However, Jurrens et al do not disclose that the air bag is secured at one end to a piston located within the housing assembly such that the piston, the end cap, and the air bag collectively define an air chamber within the housing for receiving and retaining air.

Harris is relied upon merely for his teachings of an air bag suspension system (see Figure 1) forming a shock absorber which includes at least one air bag 30, the air bag is housed within a housing assembly 40 and is secured at one end to a piston 14 located within the housing assembly and at an other end to an end cap 26 of the housing assembly.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the air bag suspension system of Jurrens et al to include an air bag housed within a housing assembly that is secured at one end to a piston located within the housing assembly as taught by Harris as an alternate means of damping the motorcycle to simplify the overall air bag suspension design and to reduce the overall number of parts to the assembly. By constructing the air bag and shock

absorber as one piece, a reduction in cost and simplicity of manufacture can be achieved.

Regarding Claim 18, Jurrens et al disclose that the motorcycle, exclusive of the air-bag suspension member, is a Harley Davidson SOFTAIL\* motorcycle (see column 5 lines 35-58).

However, Jurrens et al., as modified, do not specifically disclose that the stock coil spring suspension is characterized by a spring force which is a linear function of shock stroke.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the air bag suspension member of Jurrens et al., as modified, so that the spring force is a linear function of shock stroke as a matter of design preference dependent upon the desired damping characteristics of the suspension system. As long as the spring force is related to the shock stroke to provide adequate damping to the air bag system, their relationship to one another is arbitrary.

Regarding Claim 19, Jurrens et al., as modified, disclose most all the features of the instant invention as applied above except for the specifics of the spring force being a progressive function of shock stroke.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the air bag suspension member of Jurrens et al., as modified, so that the support spring force is a progressive function of shock stroke as a matter of design preference dependent upon the desired damping characteristics of the suspension system. As long as the spring force is related to the

shock stroke to provide adequate damping to the air bag system, their relationship to one another is arbitrary.

Regarding Claim 20, see Claim 8 above.

Regarding Claim 21, see Claim 9 above.

Regarding Claim 22, see Claim 10 above.

Regarding Claim 23, see Claim 11 above.

Regarding Claim 24, see Claim 12 above.

Regarding Claim 25, see Claim 13 below.

Regarding Claim 26, see Claim 14 below.

Regarding Claim 27, see Claim 15 below.

Regarding Claim 28, see Claim 16 below.

Regarding Claim 29, see Figure 7 of Jurrens et al.

Regarding Claim 30, see column 6 lines 13-31 of Jurrens et al.

Regarding Claim 31, Jurrens et al discloses in a soft tail type motorcycle, replacing the stock coil spring suspension with an air bag suspension (see Claim 4 above), the air bag suspension including a housing with an interior.

However, Jurrens et al do not disclose that the air bag is secured at one end to a piston movable within the housing assembly , an air bag positioned within the interior of the housing, the air bag being securely attached to an interior of the housing and to the piston to define an air chamber.

Harris is relied upon merely for his teachings of an air bag suspension system (see Figure 1) forming a shock absorber which includes at least one air bag 30, the air

Art Unit: 3683

bag is housed within a housing assembly 40 and is securely attached to an interior of the housing at 28 and 32 and to a piston 14 located within the housing assembly (see Figure 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the air bag suspension system of Jurrens et al to include an air bag housed within a housing assembly that is secured at one end to a piston located within the housing assembly as taught by Harris as an alternate means of damping the motorcycle to simplify the overall air bag suspension design and to reduce the overall number of parts to the assembly. By constructing the air bag and shock absorber as one piece, a reduction in cost and simplicity of manufacture can be achieved.

#### ***Allowable Subject Matter***

9. Claims 45-47 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

10. Applicant's arguments filed August 7, 2006 have been fully considered but they are not persuasive.

Firstly, applicant argues the merits of the examiner's rejection for Claims 4, 8-31, and 38-43 and that the Harris patent does not disclose the housing defining an interior

as claimed. Applicant contends that sleeve 40, identified by the examiner as the housing, is only a partial wall and does not form any housing structure.

In response to this, the examiner wishes to point out that applicant's claim language merely requires that some sort of housing be present in the shock absorber assembly and that it have an interior. As clearly shown in Figure 1 of Harris, sleeve 40 does house at least a portion of the flexible sleeve 30 and thus is broadly readable as a housing for that particular portion enclosed therein.

Applicant then goes on to argue that flexible sleeve 30 of the Harris patent is not positioned within the interior of a housing and that since at least a portion of the member 30 is located outside an interior of the element 40, which the examiner defines as the housing, that the Harris patent is discounted.

In response to this, the examiner contends that applicant's remarks are more specific than the claim language. While applicant is correct that portions of sleeve 30 are located outside the sleeve 40, the claim language merely requires that the flexible member being positioned within the housing. Applicant does not claim that the entire sleeve be positioned within the housing interior. Therefore, in order to meet the limitations of the claim, only a portion of the sleeve 30 need be located within member 40 and thus the claim has been rejected as such. (Applicant's attention is directed towards the examiner's objection to Claims 45-47 which more adequately reflect the differences between applicant's invention and that of the Harris patent in this regard).

Next applicant argues the merits of the examiner's rejection of Claim 3 using the Valdespino reference and in particular that the examiner's obvious statement with

respect to Claim 3 is unfounded. Applicant contends that it would not be inherent that the bladder would have to be secured to the end cap and piston of the reference. Nor that there is nothing in the Valdespino reference that teaches that some type of securing between the bladder 46 and the elements 43 and 50 is necessary.

In response to this, the examiner maintains that in order for bladder 46 to properly function, it would have to be adequately secured and maintained between cap 43 and 50 and thus, given the scope of applicant's claim language, since bladder 46 contacts cap 43 and piston 50, it is readable as being secured to these components.

Applicant then goes on to argue that simply because there may be contact between elements that does not mean that the elements are secured together. And that using this interpretation of the word "secure" is ignoring the meaning of the word.

In response to this, the examiner contends that the word "secure" as defined by Merriam Webster's on-line dictionary can also mean "held fast". So when taken in that context, since bladder 46 is "held fast" between cap 43 and piston 50 it is indeed readable as being secured to these components.

And lastly, applicant argues that the obvious statement provided by the examiner in her rejection of Claims 4, 17, and 31 is unwarranted. Applicant questions how the combination of the Harris and Jurrens patents would simplify the overall air suspension design and reduce the overall number of parts of the assembly.

In response to this, the examiner was merely suggesting that since the Jurrens reference teaches the shock absorber and air bags as being two separate and distinct parts, one of ordinary skill in the art could then look to the Harris reference to conclude

that these components could be combined and constructed as one piece (i.e., the shock absorber and air bag assembly being unitary, wherein the shock absorber includes the air bag). This culmination of parts would simplify a multiple air bag and shock absorber motorcycle air bag suspension design and thus would not, contrary to applicant's remarks, make the design more complex.

It is for these reasons that the rejections have been maintained.

### ***Conclusion***

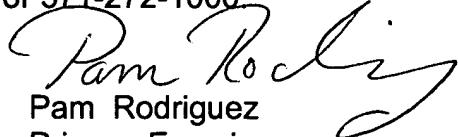
11. This is a continuation of applicant's earlier Application No. 09/753,591. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pam Rodriguez whose telephone number is 571-272-7122. The examiner can normally be reached on Mondays 5:30 AM -4 PM and Tuesdays 5 AM -11 AM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jim McClellan can be reached on 571-272-6786. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Pam Rodriguez  
Primary Examiner  
Art Unit 3683

9/11/06

Pr  
09/11/06